

(3.4) You can use the formula $c = 2.54 * i$ to find length in centimeters (c) when length in inches (i) is known. Use this formula for Problems 9-11.

9. How many centimeters are there in 7 inches? _____ (unit)

10. How many centimeters are there in 100 inches? _____ (unit)

11. Circle the best estimate for the number of centimeters in 2 feet.

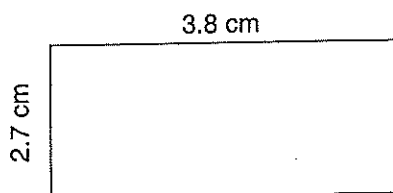
0.6

6.0

60

600

12. (3.4) Use the formulas at the right to find the perimeter and area of the rectangle.



Perimeter of a rectangle
 $P = 2 * (b + h)$

Area of a rectangle
 $A = b * h$

a. Perimeter = _____ (unit)

b. Area = _____ (unit)

13. (3.3) Evaluate each expression when $x = 2$.

a. $0.089 * 10^x$ _____

b. $x^4 + 3^x$ _____

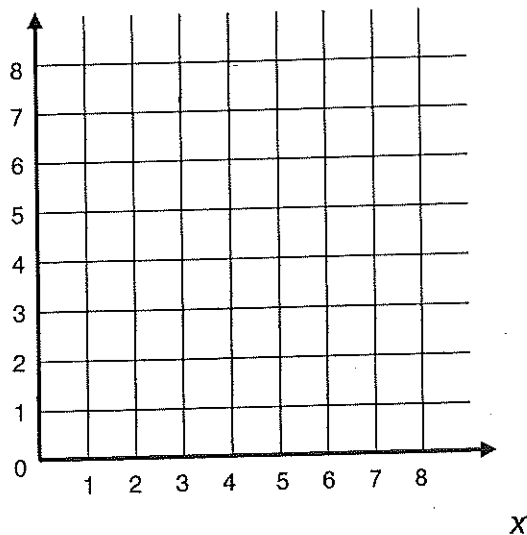
c. $x * 10^{-8}$ _____

d. $x^0 + (-3)$ _____

15. (3.9 & 3.10) Complete the table for the given rule. Then plot and connect the points to make a line graph.

Rule: $y = (\frac{1}{2} * x) + 1$

in	out
x	y
2	2
4	
6	
	$4\frac{1}{2}$
8	



19. Sarah earns \$4 per hour.

Rule:

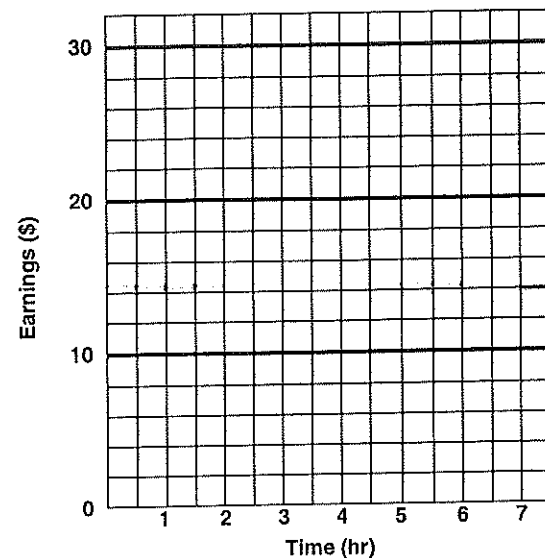
Earnings=\$4/hr

× number of hrs worked

Formula:

$$E = 4 \times h$$

Time (hrs) h	Earnings (\$) $4 \times h$
1	
2	
3	
	20
7	



a. Plot a point to show Sarah's earnings for $3\frac{1}{2}$ hours.

b. How much would she earn? _____

Give two special cases for the general pattern $y + x + x = y + (2 * x)$.

Give two special cases for the general pattern $\frac{x}{1} + 1 = x + \frac{x}{x}$

Circle each statement below (a-d) that describes the special cases at the right.

a. Doubling a number is the same as adding it to itself.

b. $2 * a = 2 + 2$

c. $2 * a = b + c$

d. $2 * a = a + a$

$$2 * 5 = 5 + 5$$

$$2 * 1.4 = 1.4 + 1.4$$

$$2 * 8 = 8 + 8$$

What is a general pattern for the problems in the box?

$$4(2 + 3) = 4 \times 2 + 4 \times 3$$

$$4(7 + 1) = 4 \times 7 + 4 \times 1$$

$$4(5 + 2) = 4 \times 5 + 4 \times 2$$
